

Sampling and Testing Guide-Minimum Frequency

CONCRETE BRIDGE FLOOR REPAIR & OVERLAY & SURFACING
Section 2413

Matls. IM 204
Appendix M

April 19, 2011
Supersedes October 19, 2010

MATERIAL OR CONSTRUCTION ITEM	TESTS	METHOD OF ACCEPTANCE & RELATED IMs		QUALITY CONTROL					INDEPENDENT ASSURANCE & VERIFICATION S&T					REMARKS
				SAMPLE BY	FREQ.	SAMPLE SIZE	TEST BY	REPORT	S&T TYPE	SAMPLE BY	FREQ.	SAMPLE SIZE	TEST BY	
SOURCE INSPECTION														
Aggregates-Fine (4110)		AS	209											
Aggregates-Coarse (4115)		AS	209											
Portland Cement (4101)	Quality	AS	401											
GGBFS (Ground Granulated Blast Furnace Slag)	Quality	AS	491.14											For HPC-O
Fly Ash (4108)	Quality	AS	491.17											For HPC-O
Mixing Water (4102)	Quality	Lab Tested							V	RCE 1/source	1 qt.	CTRL		Not needed for potable Municipal Water
Air Entraining Admixture (4103)	Quality	AS	403											
Water Reducing Admixture (4103)	Quality	AS	403											
Retarding Admixture (4103)		AS	403											
Curing Compound (4105)	Lab Tested		405						V	DME	1/batch	1 pt	CTRL	Sample lots not previously reported
PLANT INSPECTION														
Aggregate-Fine (4110)		AS Cert	A											
Aggregate-Coarse (4115)	Quality	AS Cert	A						V	DME 1/project	50 lb	CTRL		DME may adjust frequency
	Gradation								V	RCE 1/project	20 lb	RCE		When ready mixed concrete is used
Portland Cement (4101)	Quality	AS Cert	D						V	DME 1/project	15 lb	CTRL		
AS-Approved Source ASD-Approved Shop Drawing S&T-Sampling & Testing				Cert A-Type A Certification Cert C-Type C Certification Cert D-Type D Certification					RCE-Resident Construction Engineer/Project Engineer DME-District Materials Engineer CTRL-Central Materials Office CONTR-Contractor					IA-Independent Assurance V-Verification

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PLANT INSPECTION (cont)													
GGBFS(Ground Granulated Blast Furnace Slag)	Quality	AS Cert D		Each Load									For HPC-O
Fly Ash	Quality	AS Cert D		Each Load									For HPC-O
Air Entraining Admixture (4103)		AS 403						V	RCE Each batch	1 pt	CTRL		Sample if not previously reported
Water Reducing Admixture (4103)		AS 403						V	RCE Each batch	1 pt	CTRL		Sample if not previously reported
Retarding Admixture (4103)		AS 403						V	RCE Each batch	1 pt	CTRL		Sample if not previously reported
AS-Approved Source ASD-Approved Shop Drawing S&T-Sampling & Testing			Cert A-Type A Certification Cert C-Type C Certification Cert D-Type D Certification				RCE-Resident Construction Engineer/Project Engineer DME-District Materials Engineer CTRL-Central Materials Office CONTR-Contractor				IA-Independent Assurance V-Verification		

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GRADE INSPECTION														
Plastic Concrete (2413)	Air	318, 327						V	RCE 1/100	sy(2)		RCE		Freq. 1/load for ready mix(2)
	Slump	317, 327						V	RCE 1/100	sy(2)		RCE		Freq. 1/load for ready mix(2)
	Density	358						V	RCE See	Note		RCE		For Class O PCC only.(1)
	Thickness								RCE 3/50	sy		RCE		
	Cylinders							V	DME	3/project		DME		Primary Projects only (Information Only)
Concrete Sealer (2413.09)	Quality	AS 491.12												
Hardened Concrete	Smoothness	341	CONTR	100%		CONTR		V	DME 10%			DME		
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- (1) Nuclear density testing frequency for each placement shall be one test within 5 feet of the beginning and end of the placement and additional tests shall be equally spaced a maximum of 100 feet throughout the length of the placement. Each placement shall have a minimum of three nuclear density tests.
- (2) On daily pours of more than 300 square yards or 3 ready mix loads, the minimum frequency will be:
 - a. 1 test per 100 square yards for the first 300 square yards, then 1 test for every 300 square yards for the remainder of the day's pour.
 - b. 1 test per load for the first 3 loads, then 1 test for every 3 loads for the remainder of the day's pour.